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THE EXTENSION ANIMAL HUSBANDMAN

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and Extension Service, Cooperating,  
C. D. Lowe, Senior Extension Animal Husbandman,  
K. F. Warner, Animal Husbandman in Meat Extension.

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## ANIMAL HUSBANDRY PLANNING FOR THE FUTURE

By T. A. Ewing, Extension Animal Husbandman,  
Missouri Extension Service.

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Progress toward sounder, safer systems of livestock farming will surely result from the AAA programs and from the emergency measures employed to overcome the losses due to drought and erosion. The thoughtful husbandman who contemplates the recent reduction in livestock numbers through emergency purchase and disease eradication, the adjustments in grain and pork production, and the new emphasis now placed on pastures, will discern the need of radical changes in livestock management as well.

The emergency livestock purchase program was responsible for a quick and pronounced reduction, amounting for the United States, to nearly 8-1/3 million head in cattle numbers during the drought of 1934. More than 3 1/2 million sheep and 1/3 of a million goats also were purchased as a drought relief measure. The drought and the corn-hog adjustment program were responsible for a reduction in hog numbers, amounting to more than 20 million head. The effect of reduced numbers on livestock values in 1935 should receive serious consideration by livestock raisers as to a future policy.

A strip of territory, 100 miles long, south of New Orleans, is made from Corn Belt land, that has crowded the Gulf of Mexico back to that extent. This fact alone is evidence enough of the need for a land utilization policy, which, in turn involves changed methods of livestock production.

Controlling soil erosion will demand increased pasture and forage crop acreages which will require modification of animal husbandry practices. More pasture and less grain will produce less tonnage of pork and perhaps lead to a corresponding increase in sheep and beef cattle. Such an adjustment should be looked on as practical and adequately efficient for producing high-class beef with a minimum of grain for fattening purposes. Successful beef production in England under such conditions offers evidence that good pastures and well-bred cattle are the essential requirements. Nondescript cattle will have no place in such a picture.

Breeding cows and heifers have been removed from production channels at the rate of more than 33,000 head a month, since the Bang's disease testing program started last July. At the end of seven months, about 233,000 head had been slaughtered. About 13 percent of all cattle tested for Bang's disease were reactors. In the campaign against bovine tuberculosis large numbers of reactors to the tuberculin test were also slaughtered.

In view of the present situation, what should be the policy of programs of work for the future in which extension animal husbandmen will engage?

Perhaps, the pronounced success of fall-sown pastures in 1934, in the face of the acute feed shortage, will make possible a program of pasture improvement that will contribute as much as anything else to livestock producers. It should be borne in mind that more and better pasture in general does not increase livestock output but tends to reduce production costs and increase livestock vigor.

The effects of overgrazing pastures is all too evident everywhere. Of course, there are some pastures in Missouri that were not overgrazed last year, and with the abundant rains of 1935, are a perfect stand and are making luxuriant growth. Such pastures are the exception and not the rule.

The pasture program of Missouri involves the use of bluegrass and supplementary pastures, such as Korean clover for use following the spring and early summer grazing of the bluegrass pastures, and then winter pasture crops, like barley, rye, and wheat. By this plan, the bluegrass is allowed to grow following the fall rains until cold weather and as a consequence greatly simplifies winter feeding problems. It also enables the grass to store up plant food in the root system and insures a better growth the following spring.

A second phase of the animal husbandry program should include a concerted effort to avoid the recurrence of the millions of "trashy" cattle that were removed by the emergency livestock purchase program of 1934. The bulk of the cattle purchased in Missouri were living monuments to inefficient production practices.

A far-reaching campaign to prevent the use of inferior beef bulls and the production of anything without real merit is surely in order.

Beef-herd demonstrations have been an effective method in this State of showing farmers the value of raising calves from cows maintained on their own farm. Beef cows can be maintained with a minimum of grain and 700-pound calves can be marketed with from 22 to 25 bushels of corn, while two- and three-year-old steers will consume 17 bushels of corn to make 100 pounds of gain, according to records on Missouri farms. Practically 100 percent of the sale price of grain-fed calves represents farm products, which eliminates

the speculative feature of buying steers. This system of beef production fits well into a greater use of pasturage and has had the influence of leading farmers to use better beef bulls.

Market agencies have recently given wide publicity to the great margins obtained on cattle bought and fed last winter. In some cases, cattle were bought for \$3.90 to \$4.60 and returned and sold at \$10.00 to \$11.00 per hundredweight. The natural question is what about the man who sold the two-year-old steers for \$4.60?

Doubtless, other States have additional and perhaps more difficult problems than we have but the field of the animal husbandry specialist is a big one especially at this time and much clear thinking is needed in order that he may better be able to cope with future problems.

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EXTENSION ANIMAL HUSBANDMEN MEET

During the regular annual meeting of the American Society of Animal Production which will be held at Chicago, Ill., November 29-30, 1935, a sectional program for extension workers will be included. It is the one opportunity of the year for this group to get together for a discussion of their programs and problems. All who can possibly arrange to do so should attend.

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WILL ROGERS SAYS:

"Somebody was inspired when they founded 4-H Club. -- With all the haywire ideas we have, every once in a while we hit on a good one. I was down to the Los Angeles livestock show, and I saw these hundreds of farmer boys that had fattened and cared for a calf, or pig, or sheep, themselves. It's a thing called the 4-H Club. Somebody was inspired when they founded that. It's all over the country. By golly, they are a great bunch of kids. and they have some fine stock."

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CORRECTION

In the last issue of this publication (June, 1935), on page 8, appeared a table under the heading, "Per Capita Consumption of Meats and Lard in United States." Since the data given were calculated from the annual commercial slaughter under Federal inspection and did not include non-federally inspected slaughter, the heading more properly should have read, "Per Capita Consumption of Federally-Inspected Meats and Lard in United States." --C.D.L.

## EARLY AND LATE LAMBING IN IDAHO

By E. F. Rinehart, Extension Animal Husbandman,  
Idaho Extension Service.

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Idaho's climatic, range and feed conditions vary greatly in the different parts of the State. In the lower altitudes the winters are open, alfalfa hay is abundant, and the ranges are good only early in the season. Properly to utilize such range, it is necessary to have the lambs ready for it early in March. By the time the spring range is ready, the lambs must be old enough to utilize it. By this system the lambs become fat and are ready for market before the summer sun has dried the numerous streams and water holes, and before the rapidly growing and nutritious, but short-lived plants of the plains and foothills become dry and useless for producing prime lambs. Early lambing for such areas is indicated.

In the higher altitudes of the State the winters are long. Feed on the lower ranges is available in April or May. As the snow melts in the higher mountains, fresh, tender feed becomes gradually available all summer. In this area range lambing is commonly practiced.

A comparison of the number of lambs saved and marketed, as well as the weight and prices, gives the impression that all range sheep should be lambed in sheds. By this system higher percentages of lambs are saved. The early lambs also are heavier, on the average, than the late lambs. The question of the relative returns secured by the two methods confronted the Idaho sheepmen to such an extent that in 1924 the Idaho Wool Growers Association appointed a committee to study the problem. The ten years' project was completed in 1934. It involved data on shed lambing in high as well as low altitudes of the State. In many instances early shed lambing in the high altitudes was not so profitable as late lambing. A well-known principle of successful range livestock operation is that lambing and calving seasons should be at the time when feed is most abundant and cheap. The breeding flocks and herds may be roughed through the winter. Shed lambing requires liberal winter feeding of the breeding ewes, in order that the lambs may be strong and vigorous, and that there may be an abundant milk supply. The extra equipment, labor and feed expense can be offset only by high returns.

During the ten years' study of the relative returns of shed- compared with range-lambing, the figures varied greatly. In years when the early summer prices of lambs were high and late summer prices low, shed lambing proved the more profitable. When the prices remained fairly uniform throughout the summer, range lambing was the more profitable. However, the ten-year average shows the two systems to have so nearly the same average net return that the only conclusion to be made is that the system adopted must depend upon the nature of the available range, and the abundance and price of the winter feed supplies.

In connection with the cost of production studies, records of weights and values of Idaho range lambs on the market at different seasons were kept. The record of 7,258,765 Idaho lambs marketed from the ranges during the last ten years gave a range in weight in different years of from 71 to 80 pounds, averaging 76 pounds market weight. The percentage of lambs selling "fat" ranged from 65 to 83 percent, averaging 75.5 percent. The average weight of all "fat" lambs was 79 pounds, and of all "feeders," 67 pounds. In the ten-year average the "fat" lambs brought \$1.65 per hundredweight more than the feeder lambs. Variation in the weight of the lambs and percentage of fat and feeders was due entirely to the abundance of the winter feed supply and to climatic and range conditions.

A comparison of results, based upon recent figures, and given in the following table, is typical of the relative returns that can now be expected from operating under the two systems:

Shed and Range Lambing Data per Ewe

<u>Operating costs:</u>	<u>Shed lambing</u>	<u>Range Lambing</u>
Hay and grain - - - - -	\$1.68	\$1.82
Labor - - - - -	1.28	1.03
Supplies - - - - -	.45	.36
Pasture and range - - - - -	.34	.29
Shearing - - - - -	.17	.16
Taxes - - - - -	.13	.11
Other expense - - - - -	.42	.33
Interest (sheep and equipment) -	.68	.51
Death loss - - - - -	.63	.71
Depreciation (sheep) - - - - -	.87	.87
Total	\$6.65	\$5.39

<u>Returns:</u>	<u>Shed lambing</u>	<u>Range lambing</u>
From wool - - - - -	\$2.45	\$1.89
From lambs - - - - -	<u>4.39</u>	<u>3.77</u>
Total returns - - - - -	\$6.84	\$5.66
Net returns - - - - -	\$ .19	\$ .17
Average weight per lamb, lbs. -	80.0	76.0
Percent lambs matured - - - - -	97.0	90.0
Weight lambs per ewe, lbs. - -	77.6	68.4
Fleece weight, per ewe, lbs.- -	10.0	8.4
Percentage ewes lost - - - - -	9.0	11.0

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#### OKLAHOMA RESULTS, 1934

County agricultural agents in 26 counties of the State conducted 243 method demonstrations in sheep husbandry during the year, 50 of which were in the control of stomach worms.

Three purebred-ram sales were held, all in the month of July. Seventy-one Shropshire and Hampshire rams made up the offerings. The sales were held under the auspices of the Oklahoma Sheep Breeders' Association, with the cooperation of the Oklahoma A. & M. College. One hundred forty-eight farmers located in 27 different counties were aided in obtaining purebred rams and 197 farmers in 21 different counties in securing purebred or high-grade ewes.

Assistance was given in the placing of purebred beef bulls on 274 farms located in 42 different counties.

Four hundred forty farmers located in 33 different counties followed swine-parasite-control recommendations, and 1299 farms in 39 different counties cooperated in swine-disease-control work. Four thousand six hundred sixty-eight boys and girls were enrolled in 4-H pig-club projects. Baby-beef-club members enrolled numbered 2,081 and lamb club members, 307. Final reports showed 1,175 baby-beef-club projects, 2,312 pig-club projects and 302 sheep-club projects completed.

-----From Oklahoma Annual Report, 1934.

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#### WISCONSIN JUNIOR SHOW

The nineteenth annual Wisconsin Junior Live Stock Exposition was held at the College of Agriculture, October 22-25, 1934. The management considered it an outstanding show in every way. There were 223 boys and girls from 14 Wisconsin counties exhibiting 215 baby beeves, 200 lambs, and 233 barrows. The average price received for the 209 beef calves sold was \$8.37 per hundredweight, for the 191 lambs sold \$7.64, and for the 232 barrows \$6.77 per hundredweight. The total sales amounted to \$19,425.61.

-----Wisconsin Annual Report, 1934.

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## INDIANA SPRING STALLION SHOWS

By P. T. Brown, Purdue University,  
Lafayette, Indiana.

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The importance of good stallions as the first requirement in horse improvement, was effectively portrayed to Indiana horsemen last March when 123 Belgian and Percheron stallions were exhibited before some 3,000 people in three district spring stallion shows.

Each show was held in a good horse breeding district where horsemen generally are interested in improving their stock. The management of these shows was entirely in the hands of district committees of stallion owners. These district committees were composed of either one or two stallion owners from each county in the district. Each committee, as soon as selected, held a meeting, elected its own officers, chose the place for holding the show, outlined the classes, raised its own finances and managed all the details connected with the show. The three committees held their shows on successive days, and engaged Prof. R. S. Hudson of the Michigan Agricultural College as judge.

The Noblesville Show, held March 13, was the first of the series with an exhibition of 29 stallions, 15 of which were Belgians and 14 Percherons. The champion Belgian stallion was the 1934 International champion, Rowdy de Or, owned by H. C. Horneman. The champion Percheron was the two-year-old Baryton's Milton, exhibited by the J. C. Penny-Gwinn Farms. This young horse had been the futurity winner in 1934 at the Indiana State Fair and the "International."

On the day following the Noblesville Show came the Muncie show. Located in a strong Belgian district, this show had 43 Belgian stallions and 9 Percherons, a total of 52. Another "International" champion, Balzac de Bogaerden, owned by E. Arthur Ball of Muncie, led the Belgians here. The champion Percheron was the black aged horse, Tom, owned by Les Pensinger of Portland.

The Muncie show was exceedingly well managed. The large show ring was fenced off with woven wire. The footing for showing the horses was cinders. The spectators were kept outside the ring. All classes were brought into the ring promptly due to an efficient caller in the barns. All horses were placed from the top to the bottom of each class. The names of all winners were

announced, and, also, the places where the various stallions would make stands during the coming breeding season. Immediately after the judging, a band headed a parade of the 52 stallions through the business district of Muncie.

The third show was held at Cambridge City with 42 stallions divided equally between the Belgians and Percherons. The champion Percheron was Latot, owned by Fred J. High of New Madison, Ohio. This was a black five-year-old son of the famous Laet and a first prize winner at the 1934 International. Balzac de Bogaerden, owned by Mr. Ball was again champion among the Belgians.

A feature of the Cambridge City show was the Percheron class for veteran stallions (ten years old or over). R. G. Leeds of Richmond, carried off the blue with Carleeds, a 16-year-old son of Carnot. This horse had never been off the home farm before, but he is the sire of J. J. Helmuth's herd sire, Carlmar, which was grand champion at the 1929 Indiana State Fair. Second in this impressive class of old sires was C. M. Beall & Sons' recently purchased horse, Trevison, a black son of Treviso that headed the Michigan State College stud for many years. Third was Virgil LaFuse's massive grey imported Baryton which was grand champion at the Philadelphia Sesqui-Centennial in 1926, and which has won the Percheron Society trophy as the high ranking sire in the Hoosier Gold Medal Colt Club for four years.

Horsemen of the three districts where these shows were held are enthusiastic about them, but it will take time to show whether they can serve a useful purpose in the horse-improvement program. The reactions of leading horsemen indicate that these shows can be improved for next year by making the following changes:

1. Competition should be limited to stallions that are to stand within the district rather than being opened to the world. This regulation will prevent professional exhibitors making a circuit of these shows, and keeping away the stallions that are to be used in the district.

2. The relative breeding ability of the sires of the district should be demonstrated more fully by adding a get-of-sire class.

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#### ANIMAL HUSBANDRY EFFICIENCY

It may be roughly estimated that the equivalent of at least 5,000,000 acres of crop land has been contributed to agricultural production since the World War by improvements in animal husbandry.

--Dr. O. E. Baker.

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## PUREBRED CATTLE FOR THE INDIANS

(Prepared from data supplied by A. C. Cooley, Director of Extension and Industry, Office of Indian Affairs, United States Department of the Interior, Washington, D. C. - C. D. Lowe.)

At the height of the 1934 drought emergency an allocation of \$800,000 of emergency relief funds was made to the Office of Indian Affairs, U. S. Department of the Interior, for the purchase and transportation of purebred registered cattle from drought-stricken herds to be placed on certain Indian reservations where conditions were more favorable. The primary purpose of the project was to provide additional relief to purebred herd owners in the primary drought area. Such purchases were to be made in accordance with a definite price schedule varying with age and sex but having a maximum purchase price of \$60 per head. The regular Government emergency livestock purchase program had a fixed maximum of \$20 per head which could be paid for cattle.

As a result of this arrangement a total of 15,399 head of purebred registered beef cattle were selected and purchased by agents of the Indian Service and distributed to different Indian reservations. Of the total purchases, 12,732 head were Herefords, 2,439 were Shorthorns and 238 were Aberdeen-Angus. Bulls purchased totalled 4,561 head and females 10,838 head. The average purchase cost per head was approximately \$45 which included registration certificates and transfers of ownership.

Eighteen States were represented in the purchase territory, Texas furnishing the largest number, with Kansas, Nebraska, Missouri, and New Mexico next in order as States of origin. The following tabulation shows the number of head by breeds purchased in each State and the totals for each State.

### Purchases by States

	<u>Breeds</u>	<u>Number</u>	<u>Total</u>
Texas	Hereford	4,484	4,484
Kansas	Hereford	1,696	
	Shorthorn	678	2,374
Nebraska	Hereford	1,490	
	Shorthorn	211	1,701

	<u>Breeds</u>	<u>Number</u>	<u>Total</u>
Missouri	Hereford	763	
	Shorthorn	492	
	Aberdeen-Angus	56	1,311
New Mexico	Hereford	1,194	1,194
North Dakota	Hereford	487	
	Shorthorn	316	
	Aberdeen-Angus	43	846
Utah	Hereford	513	
	Shorthorn	99	612
Montana	Hereford	378	
	Shorthorn	146	
	Aberdeen-Angus	16	540
Colorado	Hereford	429	
	Shorthorn	77	506
Wyoming	Hereford	399	
	Shorthorn	7	406
Oklahoma	Hereford	257	
	Shorthorn	73	
	Aberdeen-Angus	72	402
South Dakota	Hereford	261	
	Shorthorn	97	
	Aberdeen-Angus	36	394
Minnesota	Shorthorn	157	
	Hereford	45	
	Aberdeen-Angus	5	207
Arizona	Hereford	140	140
Iowa	Hereford	68	
	Shorthorn	55	123
Idaho	Hereford	100	100
Wisconsin	Shorthorn	31	31
Oregon	Hereford	28	28

Grand total..... 15,399

Forty-eight Indian reservations located in 16 different States received cattle from such purchases. Arizona and Montana reservations were allotted the largest total numbers, followed in order by reservations of Washington, Idaho and New Mexico.

This undertaking not only provided much needed relief to the owners of distressed purebred herds but also saved for the industry much good foundation stock which otherwise, in many instances, would have perished or gone to slaughter. Furthermore it enabled Indian reservations to be stocked with high-class breeding cattle which otherwise were not available to them.

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#### MISSISSIPPI PORK-CURING RESULTS

During the curing season 1934-35, 36 of the 39 commercial curing plants in the State cured a total of 1,580,898 pounds of pork for 7,781 different farmers. This was a distinct gain over the previous season when 24 plants cured 857,729 pounds.

Such curing under controlled temperature conditions is preventing the loss of a large percentage of pork ordinarily met with on the farm without proper temperature and is yielding a superior product for home use and local sale.

We have encouraged this work by the holding of demonstrations in approved methods in slaughtering, cutting and curing, and it is gratifying that farmers and curing plant managers generally are using our methods in the handling of their pork and pork products.

Prior to the last season a majority of the commercial plants simply cured the pork for farmers, now 19 plants have installed soaking vats and smoke houses and during the last season 672,100 pounds of pork were smoked by such plants. The plant located at Laurel cured a total of 144,396 pounds of pork for 800 different patrons last season. The Forest plant with 700 patrons turned out 120,000 pounds of cured product. Twenty-two other plants were each patronized by from 114 to 633 different farmers and handled from 15,000 to 131,000 pounds of pork each.

We are giving close supervision to all phases of this work, in which both agricultural and home agents are cooperating. Additional slaughtering and cutting demonstrations are being conducted as rapidly as communities can be organized.

---Paul F. Newell, Mississippi Extension Animal Husbandman.

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## EXTENSION LIVESTOCK PROBLEMS IN NEW MEXICO

By W.L. Black, Extension Animal Husbandman,  
State College, New Mexico.

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Prospects for the range livestock industry of New Mexico are the brightest that they have been in several years, but at the same time the Extension Service is faced with a situation whereby it is almost impossible to do any active work along lines of improved range management. This is largely due to the fact that the ranchmen are anxiously waiting for permanent permits or allocations to be made under the provisions of the Taylor Grazing Act.

A ranchman does not feel inclined to buy outstanding bulls until he learns whether or not his allocation under the above-mentioned act will be on an individual or upon a community basis. Neither does he feel inclined to build fences on his leased land until he is convinced that it will not be possible to get the U. S. Department of Interior to build such fences for him, either on the public domain within his allotment or on the boundary lines between the public domain and leased land.

The same situation prevails in all lines of livestock activity, with the possible exception of improved watering facilities. Rather large numbers of ranchmen are working feverishly to increase the improved watering facilities, because such facilities have a direct bearing upon the amount of commensurability the owner will have under the provisions of the Taylor Grazing Act.

As soon as the permanent permits are issued, which will probably not be until 1936, the work of the Extension Service along range management lines will increase enormously. The ranchmen are fully alive to the fact that this Service is better equipped to give them assistance and sound advice than any other agency, and many of them have already informed us that they will be in need of a large amount of assistance as soon as their holdings are established upon a definite basis. The entire set-up has placed us in a rather peculiar position, as most of the ranchmen of the State are inclined to feel that our advice is always sound, and to follow that advice to the very best of their ability.

It is our natural inclination to get needed improvements of various kinds as soon as possible, but if we advised a man to build a fence for instance, and he does so at considerable expense, and a year later his neighbor has a similar fence built at the cost of the U. S. Department of Interior, there is a strong probability that the first man would look upon our recommendations with suspicion in the future.

We are therefore, being extremely conservative in our statements and frankly telling ranchmen that we do not have information as to what the policies of the various Federal set-ups will be, and informing them that any expenses they incur for improvements should be made with the realization that there is a possibility the Federal agencies will later have authority to make such improvements without cost to the individual.

New Mexico today is in such a condition that the ranges are rapidly returning to the status in which they were before the drouth of 1934 occurred. We also have reduced numbers of all classes of livestock. The acreage of feedstuff within the State is being materially increased. All these factors will tend to make better returns for all classes of livestock, which in turn will tend to cause the ranchmen to increase their holdings.

We therefore look for a period of feverish activity among livestock men as soon as the permanent policies of administration of the lands of the State is established. The probabilities are that we will have to consume most of our energies in holding this increase down to a sane and sensible level rather than having to advocate larger production. We feel that our principal role in this program will be in assisting in increasing the quality of our livestock and advocating systems of management that will guarantee quality improvement.

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#### MICHIGAN SUMMARY

Nearly 900 individual cooperators were enrolled in regular project work, and this part of the program is growing each year. During the year, a total of 538 livestock meetings were conducted at which 120,240 people were in attendance. Of these meetings, 310 were demonstration meetings. A total of 1,150 cooperator and farm visits were made. The greater share of these were to the farms of local cooperators in project work. In furthering the service given, considerable time was also devoted to the preparation of news articles, form letters, and personal letters. Seventy-five news articles were prepared, and 10,000 form, and 3,000 personal letters were mailed.

--From Michigan Annual Report, 1934.

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## THE MICHIGAN BEEF-CALF FEEDING PROJECT

Purpose: This project is conducted to encourage the better feeding and production of beef cattle in Michigan. It is also of such nature that the 4-H Club member who has just completed his time in 4-H Club work will immediately be able to step into other work to his liking. This project is not only of benefit to the Cooperators, but it is also of educational advantage to all beef breeders in the State. It is a source of considerable information as to feeding rations, rates of gain, management practices, etc.

Procedure: Records in this project are based on daily rates of gain over a 210-day feeding period. At the beginning and end of the feeding period, the calves are officially weighed. These weights are taken either by the county agricultural agent or the extension specialist. All calves making a daily average rate of gain of two pounds are eligible to be shown in the Farmers' Week Show, beginning about the first of February. The calves are divided into two classes: Senior class, September 1 to December 31, 1933, and Junior class, January 1 to April 1, 1934. All cooperators are required to keep careful records of gains, feed costs, and management practices. Placards showing the rations fed are hung up above each calf, at the Farmers' Week Show. The calves are judged by breeds, and also by age classification with all breeds competing. The first show is judged by a breeder or breed representative, while the second show is judged by strictly market men, such as commission salesmen or packers. At the conclusion of the show, the calves are sold at public auction. Meetings and demonstrations are held in the communities where the calves are on feed. This project, however, has an important psychological effect in stirring up interest.

Results: Sixty-two calves from 19 counties were enrolled, and out of this group, 43 made the two pounds average daily gain and were eligible for the Farmers' Week Show. The Show was very well attended and considerable interest was manifested in the calves throughout the week. The sale was well patronized and the animals sold at an average of 12 1/2 cents per pound. This was 4 1/2 cents more per pound than was paid a year ago.

A new State record was established in the project this year when A.J. Battenfield of Fife Lake made his Red Polled calf gain an average of 2.99 pounds per day for the 210-day period. The feeding practices followed by Mr. Battenfield were simple and can be duplicated by anyone. It was clearly pointed out by him that management also counts in making steers gain fast. A comparative summary of the feeding practices of the men enrolled showed that it cost them an average of 9-8/10 cents to put on a pound of gain. This project



also has the advantage of stirring up local interest and in creating activities in beef cattle production at a time of the year when people have more leisure time to study the results. This project also gives individual cattle men in counties where beef cattle production is of relative unimportance an opportunity to participate in an extension activity.

--From Michigan Annual Report, 1934.

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#### MORE PASTURE AND FORAGE

The adjustment programs took 36 million acres out of basic surplus crop production in 1934. This represents about one acre in every nine cultivated in the United States. More than one-third of this acreage was planted to erosion-control and soil-improving crops, such as pasture and meadow crops, while about one-third was used for emergency forage crops and crops for home feed and food. Less than one-third was fallowed to conserve moisture or control weeds, or was left idle.

In 1935 more than 30,000,000 acres will be included as contracted acres under adjustment programs. On July 25 contract records returned indicated the following contracted or shifted acreage: corn, 11,969,000; wheat, 4,911,900; cotton, 10,293,000; tobacco, 429,700. On this land we have evidence that farmers co-operating in the programs are making remarkable progress in adjusting their rotations and farm practices to achieve an increased acreage of grasses and legumes. Seed supplies of adapted alfalfa, lespedeza, sweet clover, soybeans and grasses are being used in larger volume than ever before.

The adjustment contracts have been an important factor in bringing about the largest increase in legume acreage ever reported in the United States. According to the July 16 report of the Bureau of Agricultural Economics, the 1935 acreage of alfalfa is 1,750,000 acres larger than last year's, having risen from 11,482,000 acres to 13,198,000 acres -- a 14 percent increase. During the same time soybean acreage went up 1,200,000 acres, from 4,223,000 to 5,463,000, an increase of more than 29 percent. Hay acreage for 1935 was 66,096,000, an increase of 5,384,000 acres.

A preliminary estimate shows that well over a third of the contracted or rented acres this year were planted to crops that improve and conserve the soil. It is estimated that less than 15 percent of the total land contracted was idle or fallow; and that of the 15 percent the larger part was fallowed for definite purposes of moisture conservation and weed eradication.

--Joseph F. Cox, Chief, Replacement Crops  
Section, Agricultural Adjustment Administration.

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## WISCONSIN LAMB-PRODUCTION CONTEST, 1934

The sixth annual lamb-production contest was conducted in 1934 cooperatively by the Wisconsin Live Stock Breeders' Association and the animal husbandry department of the college of agriculture. Its object is to demonstrate efficient and economical methods of lamb production and to give recognition to flock owners who lead in efficiency on the basis of average production per ewe. Any sheep owner having 15 or more breeding ewes producing lambs between the dates of February 1 and May 31 is eligible to enroll in this contest. Entire flocks of ewes must be entered before the first lambs are dropped. No restrictions are placed on breeding, feeding, or management. All flocks entered are inspected by a county agricultural leader or two disinterested parties before the first lambs are dropped. Final weights are taken when the average age of the lambs is between 120 and 135 days. It was required that all lambs be docked and all ram lambs not purebred be castrated before June 15. Three classifications are set up as follows:

Class I - 15 to 25 ewes per flock

" II - 25 to 50 " " "

" III - 50 or more " " "

Percentage of lamb crop is based on number of ewes in flock at time lambing started. Brief reports of handling of ewes from breeding season to lambing time and brief reports of care of ewes and lambs from lambing time to date of weighing are requested of all contestants. Reports include income from the flock, based on returns from the wool, and returns from lambs. Certificates of merit are awarded to all owners who make the following weights of lamb per ewe in 120 days.

Class I - 90 lbs.

" II - 85 "

" III - 80 "

All contestants making a production of 100 pounds or more of lamb per ewe are eligible to become members of the Wisconsin Century Lamb Club. Five contestants were eligible this year for this honor. Presentation of certificates of membership were made at the annual meeting of the Wisconsin Sheep Breeders and Wisconsin Wool Growers Associations February 5, 1935.

### 1934 Lamb Production Contest

	No. ewes	No. lambs	Average wt. per lamb (Lbs.)	Production per ewe (Lbs.)
15-25 Ewes				
Winston Mahlke	17	27	69	110.2
Peder Pederson, Iron River	22	34	68.1	105.2
Charles Day, Pembine	19	23	74.9	89.7
Wallace Gluth, Lodi	16	23	58.0	83.4
25-50 Ewes				
Thomas Gille, Shullsburg	40	63	78.4	123.5
Carl Forck, Glen Haven	40	52	87.4	113.8
Irvin Motley, Mineral Point	33	42	77.5	98.6
W. C. Arneal, Poynette	32	46	69.8	98.1
Oscar Reuhl, Cambria	29	42	68.0	91.6
Glen Michaels, Berlin	35	45	64.4	82.8
K. P. Thrall, Green Lake	49	63	56.6	73.0
W. C. Otto & Son, Sun Prairie	37	37	65.4	65.4
L. A. Goehring, Chippewa Falls	44	40	56.2	51.1
50 Ewes and over				
Lynn Creswell, River Falls	71	93	77.4	101.4
C. M. Fultz, Wausaukee	100	118	61.1	72.0

--From Wisconsin Annual Report, 1934.

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### ARKANSAS RAM SALES

Two auction sales of purebred rams were held in the Ozark region of Arkansas during June this year. They proved to be valuable educational events and offered an opportunity for farmers to make their purchases at savings in both time and money. Due to the scarcity of purebred sheep in the State, auction sales of purebred rams furnished by breeders from outside the State were started in 1933. Previous to that time most growers obtained their rams by mail order and had them delivered by express. Now these growers depend upon the sales for their supply of rams.

The two sales, this year, were attended by approximately 300 persons and the discussion of the rams prior to the sale was a valuable feature. This opportunity to see and compare a number of purebred rams which had been well fitted was appreciated by the less-experienced growers especially. Farmers from eight different counties attended and 50 head of registered rams were sold at an average price of \$21.65 per head.

--M. W. Muldrow, Arkansas Extension Animal Husbandman.

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### SOUTH DAKOTA MEAT DEMONSTRATIONS

Due to the emergency food situation confronting so many communities in South Dakota at the beginning of the winter season of 1933-34 and because of the many requests reaching the Extension Service for information concerning farm butchering, home curing and home canning of meat, it was necessary to hold a Statewide series of meat demonstrations. The meetings were planned and arranged through the cooperation of the county agents, the home agents and the emergency agents. Fifty-one counties were reached with these meat demonstrations.

For the most part, only one kind of meat was used at a demonstration unless a forenoon and afternoon session had been arranged, when two kinds of meat were used. At two meetings there were three classes of meat handled at the demonstration. At two other meetings beef and lamb were used, at one meeting pork and lamb and at nine meetings pork and beef. There were 36 meetings where pork was the meat used, 24 meetings at which beef was used exclusively and 1 meeting where lamb was the only meat used. The interest in the meetings this season was greater than it had been at any time heretofore. There were several instances wherein farm families had traveled from 70 to 85 miles to attend the meetings. In holding the 76 meat demonstrations a total of 5,629 persons were reached or an approximate average of 75 to a meeting.

Cuts of cured lamb were displayed and discussed at each one of the demonstrations and wherever people expressed an interest in sampling the cured products, they were given an opportunity to do so. It was the aim of the Extension Service to create a broader demand for the use of lamb and mutton in the home and to demonstrate how various cuts of lamb or mutton might be successfully cured and stored. At one of the demonstrations held in Clay County, a hog carcass infected with tuberculosis was brought in for the demonstration. Those who butchered the hog and were planning to use the meat did not realize that the carcass was infected. It made a very striking demonstration in that community to show the infected glands and the family was asked to have the carcass checked by the nearest veterinarian before using any of the meat or by-products. This they agreed to do and the diagnosis made at the meeting was confirmed by the veterinarian. The carcass was condemned. A very fine letter of appreciation was received from this family for calling their attention to the condition of the carcass. At other demonstrations local people would often bring out some very good formulas for curing meat or some

very effective practices for the utilization of the carcass or the storing of the meat. It was the aim of those conducting the demonstration to always try to have the local people take part in the demonstration and thus make of it a clearing house for the very best meat practices in the community.

Meat literature was passed out at each one of the demonstrations. In some of the counties where home agents handled the canning demonstration they would have some meat specialty prepared and would serve it to those in attendance. This appealed to the men and women and served to clinch the value of the canning demonstration. In a number of counties meat demonstrations were scheduled in the communities which were not supporting local extension activities. Consequently, the attendance would not be so large in such communities but those who were attending felt that the demonstration was very much worth while and requested meat demonstrations for the future. Requests have come in for more meat demonstrations which will necessarily have to be deferred until the next season.

A local survey conducted by the home agents in their respective counties indicated that the meat demonstrations which have been held during the past three seasons had influenced from 37 to 45 percent of the meat practices with respect to butchering, dressing the carcass, cutting and curing the meat and storing the cured product.

--From South Dakota Annual Report, 1934.

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#### EMERGENCY MEAT CONSERVATION

Nearly a billion pounds of meat have been conserved and made available for relief distribution through the emergency hog, cattle, sheep, and goat purchase programs of the Agricultural Adjustment Administration. The cattle and sheep which were purchased provided about 790 million pounds of beef and mutton and the sows and pigs approximately 104 million pounds of pork and lard. All of the products of the hog purchase program have been distributed to those on relief.

Storage supplies of meat held by the Federal Surplus Relief Corporation on May 1 included 115,224,187 pounds of beef; 7,977,402 pounds of veal; and 5,572,183 pounds of mutton, a total of more than 128 million pounds. In addition, it is estimated that on the same date the State Emergency Relief Administrations still had in storage and available for relief distribution an equal amount of meat.

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### WEST VIRGINIA COW-AND-CALF PROJECT

The further development of the cow-and-calf project, and the assistance given county agents in helping them put on the regional feeder-calf shows and sales have been the most significant accomplishments in the beef-cattle program.

This year there were held four regional feeder-calf shows and sales as follows:

Jackson's Mill - 242 head with an average sale price for the steer calves of \$30.96 per head, and \$20.50 per head for the heifer calves. The steer calves averaged approximately 400 pounds per head and the heifer calves 379 pounds. The steer calves sold for \$7.74 and the heifer calves for \$5.41 per hundredweight.

Pennsboro - There were 67 calves in the sale. The steer calves sold for an average of \$30.70 per head and the heifer calves for \$21.97, or \$7.53 and \$5.23 per hundredweight respectively. The steer calves averaged 407 pounds per head and the heifer calves 420 pounds.

Spencer - 76 calves were sold. The steer calves averaged \$23.16 per head, and the heifer calves \$21.25. The steer calves averaged 400 pounds and sold for \$5.79 per hundredweight and the heifer calves averaged 384 pounds and brought \$5.53 per hundredweight.

Huttonsville - There were 122 calves in this sale. The steer calves averaged \$24.19 per head and the heifer calves \$18.46. The steer calves averaged 361 pounds and sold for an average of \$6.70 per hundredweight. The heifer calves averaged 378 pounds and sold for \$5.00 per hundredweight.

This is the first year that Spencer and Huttonsville have held a feeder-calf show and sale, which largely accounts for their calves grading and selling lower than the calves at Jackson's Mill and Pennsboro.

Calves were shown that graded Choice or better, and ribbons and cash prizes were awarded. There were practically no calves in the four sales that graded below Good. It is the idea of those who are in charge of these demonstration sales to handle no calves grading below Good.

These shows and sales are demonstrating to the cattlemen the value of having calves well bred, castrated, dehorned, well grown, graded into uniform lots and sold cooperatively.

The feeder calf shows and sales have created considerable interest and a demand with the cattlemen for better and more pure-bred bulls. This interest was so great that immediately following the shows and sales, orders for two carloads of bulls, or 63 head were secured. A representative from the extension animal husbandry office and a county agent made the trip to Kansas and purchased these bulls direct from ranchmen in the drought area. Excellent bull calves from eight to ten months old were purchased on the range at from \$45 to \$65 per head.

As a result of all these efforts more cattlemen are establishing better herds of cows and more men are becoming interested in a breeding program for the production of more good commercial calves.

--From West Virginia Annual Report, 1934.

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#### PERSONNEL ITEMS

J. R. Neale, Wyoming livestock extension specialist, was granted a year's leave of absence on May 15 to become acting director of the rural rehabilitation division of the Wyoming Emergency Relief Administration.

The following assignments of subject-matter specialists in New York have been made for 1935 - W. T. Grams will be in charge of the corn-hog adjustment program, H. A. Willman will conduct the sheep husbandry program, and K. L. Turk will be the leader in meat-cutting demonstrations.

C. M. Bice, has been appointed animal husbandry specialist in the Hawaiian Islands' Extension Service.

L. H. Marlatt, who has been in charge of the meat extension project in Georgia for several years, died suddenly on July 28.

George Henderson, formerly assistant extension animal husbandman in Colorado, has been made rural organization specialist on the same staff.

Effective July 1, L. A. Richardson of the Tennessee extension staff was made leader of the animal industry, feed and forage division of the State Extension Service. In the new position Mr. Richardson, who formerly was beef cattle specialist, will have greatly enlarged responsibilities.

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## RECENT PUBLICATIONS

(Only U.S.D.A. publications are available from the Department at Washington. In most instances others can be obtained from the institution or agency issuing them).

### Federal

"The Future Need for Farm Land" by Dr. O. E. Baker - 40-page mimeograph - Bureau of Agricultural Economics, U.S.D.A.

"Farm Production and Income from Meat Animals, 1930, 1931, 1932, 1933 and 1934" - a 49-page mimeograph - Bureau of Agricultural Economics, U.S.D.A.

"Technical Terms of the Wool Market" by Warner M. Buck - 7-page mimeograph - Bureau of Agricultural Economics, U.S.D.A.

### State

"Wintering and Fattening Beef Cattle in Alabama" - Alabama Experiment Station Leaflet No. 15. July 1935. 3 pages.

"Pasture Investigations in Georgia" - Georgia Coastal Plain Experiment Station (Tifton) Bulletin 24. 1934.

"The Screw Worm" by Theo. L. Bissell - Georgia Experiment Station (Experiment) Bulletin 189. Apr. 1935. 11 pages.

"Effect of Fowler's Solution on Animals" by Elmer Roberts and W. M. Dawson - Illinois Experiment Station Bulletin 413. Apr. 1935. 16 pages.

"Dressing and Cutting Lamb and Mutton" by M. D. Helser - Iowa Experiment Station Circular 71.

"Feeding Experiments with Farm Work Mules" by Roy Kuykendall - Mississippi Experiment Station Bulletin No. 305. Mar. 1935. 23 pages.

"The Use of Wheat and Rye for Fattening Calves" by Marvel L. Baker - Nebraska Experiment Station Bulletin 295. Apr. 1935. 16 pages.

"Pregnancy Disease in Sheep" by Elder and Uren - Missouri Experiment Station Bulletin 345. 1935. 15 pages, 5 illus.



"Farm Work Mares and Colts" by E. A. Trowbridge and T. A. Ewing - Missouri Extension Service Circular 323. Apr. 1935. 15 pages.

"An All-Year Pasture System for Missouri" by W. C. Etheridge, et al. - Missouri Experiment Station Circular 186. May 1935. 12 pages.

"Feeding Small Grains to Live Stock" by M. L. Baker, et al - Nebraska Extension Service Circular 238. Mar. 1935. 8 pages.

"The Public Range and the Livestock Industry of Nevada" by C. A. Brennen, et al. - Nevada Experiment Station Bulletin 139. Mar. 1935. 19 pages.

"Top-Dressing Pasture Lands with Fertilizer" by F. S. Prince et al. - New Hampshire Experiment Station Circular 48. Apr. 1935. 16 pages.

"Emergency Feeding of the Work Horse" by F. W. Christensen - North Dakota Extension Service Circular 128. Apr. 1935. 8 pages.

"Fattening Steer Calves" by Paul Gerlaugh - pages 31 to 34 of Ohio Experiment Station Bimonthly Bulletin, Vol. XX, No. 173. Mar.-Apr. 1935.

"Corn-and-Cob Meal Versus Shelled Corn for Yearlings and Calves" by Paul Gerlaugh and H. W. Rogers - pages 34 to 37 of Ohio Experiment Station Bimonthly Bulletin, Vol. XX, No. 173. Mar.-Apr. 1935.

"Adding Supplement to Corn for Calves on Blue-grass Pasture" by Paul Gerlaugh - Pages 37-38 of Ohio Experiment Station Bimonthly Bulletin, Vol. XX, No. 173. Mar.-Apr. 1935.

"Relative Efficiency and Profitableness of Three Grades of Feeder Steers. IV." by Paul Gerlaugh and C. W. Gay - pages 38 to 41 of Ohio Experiment Station Bimonthly Bulletin, Vol. XX, No. 173. Mar.-Apr. 1935.

"Studies in Metabolism During Pregnancy" by Callie Mae Coons, et al - Oklahoma Experiment Station Bulletin 223. Mar. 1935. 113 pages.

"Fall Grain on Lespedeza Sod" - Tennessee Extension Service Publication 189. Aug. 1935.

"Copper Sulphate as an Anthelmintic for Gastro-Intestinal Parasites of Sheep" by J. H. Rietz - West Virginia Experiment Station Bulletin 264. Mar. 1935. 20 pages.

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